

FIGURE 1

1 AGAAAGGGT GCGGCAGCAC TGCCAGGGGA AGAGGGTGAT CCGACCCGGG
51 GAAGGTCGCT GGGCAGGGCG AGTTGGGAAA GCGGCAGCCC CCGCCGCC
101 CGCAGCCCCCT TCTCCTCCTT TCTCCCACGT CCTATCTGCC TCTCGCTGGA
151 GGCCAGGCCG TGCAGCATCG AAGACAGGAG GAACTGGAGC CTCATTGGCC
201 GGCCCGGGGC GCCGGCCTCG GGCTTAAATA GGAGCTCCGG GCTCTGGCTG
251 GGACCCGACC GCTGCCGGCC GCGCTCCCGC TGCTCCTGCC GGGTGATGGA
301 AAACCCCAGC CCGGCCGCCG CCCTGGCAA GCCCTCTGC GCTCTCCTCC
351 TGGCCACTCT CGGCGCCGCC GGCCAGCCTC TTGGGGGAGA GTCCATCTGT
401 TCCGCCGGAG CCCCGGCCAA ATACAGCATH ACCTTCACGG GCAAGTGGAG
451 CCAGACGGCC TTCCCCAAGC AGTACCCCCCT GTTCCGCC CCGCCAGT
501 GGTCTTCGCT GCTGGGGGCC GCGCATAGCT CCGACTACAG CATGTGGAGG
551 AAGAACCACT ACGTCAGTAA CGGGCTGCC GACTTTGCC AGCGCCGGGA
601 GGCCTGGCG CTGATGAAGG AGATCGAGGC GGCGGGGAG GCGCTGCAGA
651 GCGTGCACGC GGTGTTTCG GCGCCCGCCG TCCCCAGCGG CACCGGGCAG
701 ACGTCGGCGG AGCTGGAGGT GCAGCGCAGG CACTCGCTGG TCTCGTTGT
751 GGTGCGCATC GTGCCAGCC CCGACTGGTT CGTGGCGTG GACAGCCTGG
801 ACCTGTGCGA CGGGGACCGT TGGCGGAAC AGGCGGCGCT GGACCTGTAC
851 CCCTACGACG CGGGGACCGA CAGCGGCTTC ACCTTCCTT CCCCCAACTT
901 CGCCACCATC CCGCAGGACA CGGTGACCGA GATAACGTCC TCCTCTCCA
951 GCCACCCGGC CAACTCCTTC TACTACCCAC GGCTGAAGGC CCTGCCTCCC
1001 ATGCCAGGG TGACACTGGT GCGGCTGCCA CAGAGCCCCA GGGCCTTCAT
1051 CCCTCCCGCC CCAGTCCTGC CCAGCAGGGGA CAATGAGATT GTAGACAGCG
1101 CCTCAGTTCC AGAAACGCCG CTGGACTGCC AGGTCTCCCT GTGGTCGTCC
1151 TGGGGACTGT GCGGAGGCCA CTGTGGGAGG CTCGGGACCA AGAGCAGGAC
1201 TCGCTACGTC CGGGTCCAGC CCGCCAACAA CGGGAGCCCC TGCCCCGAGC
1251 TCGAAGAAGA GGCTGAGTGC GTCCCTGATA ACTGCGTCTA AGACCAGAGC

FIGURE 1 - continued

1301 CCCGCAGCCC CTGGGGCCCC CGGGAGCCAT GGGGTGTCGG GGGCTCCTGT
1351 GCAGGCTCAT GCTGCAGGCG GCCGAGGGCA CAGGGGGTTT CGCGCTGCTC
1401 CTGACCGCGG TGAGGCCGCG CCGACCATCT CTGCACTGAA GGGCCCTCTG
1451 GTGGCCGGCA CGGGCATTGG GAAACAGCCT CCTCCTTCC CAACCTTGCT
1501 TCTTAGGGGC CCCCCTGTCC CGTCTGCTCT CAGCCTCCTC CTCCTGCAGG
1551 ATAAAGTCAT CCCCAAGGCT CCAGCTACTC TAAATTATGT CTCCTTATAA
1601 GTTATTGCTG CTCCAGGAGA TTGTCCTTCA TCGTCCAGGG GCCTGGCTCC
1651 CACGTGGTTG CAGATACCTC AGACCTGGTG CTCTAGGCTG TGCTGAGCCC
1701 ACTCTCCGA GGGCGCATCC AAGCGGGGGC CACTTGAGAA GTGAATAAT
1751 GGGCGGTTT CGGAAGCGTC

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FIGURE 2

1 MENPSPAAL GKALCALLA TLGAAGQPLG GESICSAGAP AKYSITFTGK
51 WSQTAFPKOY PLFRPPAOWS SLLGAAHSSD YSMWRKNQYY SNGLRDFAE
101 GEAWALMKEI EAAGEALQSV HAVFSAPAVP SGTGQTSAEL EVORRHSLVS
151 FVVRIVPSPD WFVGVDSDL CDGDRWREQA ALDLYPYDAG TDSGFTFSSP
201 NFATIPQDTV TEITSSSPSH PANSFYYPRL KALPPIARVT LVRLRQSPRA
251 FIPPAPVLPS RDNEIVDSAS VPETPLDCEV SLWSSWGLCG GHCGRLGTKS
301 RTRYVRVQPA NNGSPCPELE EEAECVPDNC V

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FIGURE 3

FIGURE 4

AGAAAGGGTGCAGCAGCACTGCCAGGGAAAGAGGGTATCCGACCCGGGAAGGTGCT
 1 -----+-----+-----+-----+-----+-----+-----+-----+ 60
 TCTTTCCCCACGCCGTGACGGTCCCCCTCTCCACTAGGCTGGGCCCTTCAGCGA

 GGGCAGGGCGAGTTGGGAAAGCGGCAGCCCCCGCCGCCCGCAGCCCCTCTCCTCCTT
 61 -----+-----+-----+-----+-----+-----+-----+-----+ 120
 CCCGTCCCCGTCAACCCTTCGCGTGGGGCGGGGGGGCGTCGGGAAGAGGGAGGAA

 TCTCCACGTCTATCTGCCTCTCGCTGGAGGCCAGGCCGTGCAGCATCGAAGACAGGAG
 121 -----+-----+-----+-----+-----+-----+-----+-----+ 180
 AGAGGGTGCAGGATAGACGGAGAGCGACCTCCGGTCCGGCACGTGAGCTCTGTCCCTC

 GAACTGGAGCCTCATTGGCCGGCCGGGGCGCCGGCCTCGGGCTAAATAGGAGCTCCGG
 181 -----+-----+-----+-----+-----+-----+-----+-----+ 240
 CTTGACCTCGGAGTAACCGGCCGGCCCCCGCGGCCGGAGCCGAATTATCCTCGAGGCC

 GCTCTGGCTGGGACCGACCGCTGCCGCCGCTCCGCTGCTCCTGCCGGTGATGGA
 241 -----+-----+-----+-----+-----+-----+-----+-----+ 300
 CGAGACCGACCCCTGGGCTGGCGACGGCCGGCGGAGGGCGACGAGGACGGCCACTACCT

b M E -

AAACCCCAGCCCGGCCGCCCTGGCAAGGCCCTCTGCCTCTCCTCTGCCACTCT
 301 -----+-----+-----+-----+-----+-----+-----+-----+ 360
 TTTGGGGTCGGGCCGGCGGGACCCGTTCCGGAGACGCAGAGGAGGACCGGTGAGA

b N P S P A A A L G K A L C A L L L A T L -

CGCGCCGCCGGCCAGCCTTGGGGAGAGTCATCTGTTCCGCCGGAGCCCCGGCAA
 361 -----+-----+-----+-----+-----+-----+-----+-----+ 420
 GCCGCGGCCGGCGGTGGAGAACCCCTCTCAGTAGACAAGGCCCTGGGGCCGGTT

b G A A G Q P L G G E S I C S A G A P A K -

ATACAGCATCACCTCACGGCAAGTGGAGGCCAGACGGCTTCCCCAAGCAGTACCCCT
 421 -----+-----+-----+-----+-----+-----+-----+-----+ 480
 TATGTCGTAGTGGAAAGTGCCGTTACCTCGGTCTGCCGAAGGGGTTCGTCATGGGGA

b Y S I T F T G K W S Q T A F P K Q Y P L -

GTTCCGCCCCCTGCGCAGTGGTCTTCGCTGCTGGGGCCGCGATAGCTCCGACTACAG
 481 -----+-----+-----+-----+-----+-----+-----+-----+ 540
 CAAGGCGGGGGACCGTCACCAAGAAGCGACGACCCCCGGCGGTATCGAGGCTGATGTC

b F R P P A Q W S S L L G A A H S S D Y S -

CATGTGGAGGAAGAACCAAGTACGTCAGTAACGGCTGCGCAGTTGCAGGAGCGCGGA
 541 -----+-----+-----+-----+-----+-----+-----+-----+ 600
 GTACACCTCCTTGGTCATGCAGTCATTGCCGACCGCCTGAAACGCCCTCGCGCCGCT

b M W R K N Q Y V S N G L R D F A E R G E -

FIGURE 4 - continued

601 GGCCTGGCGCTGATGAAGGAGATCGAGGCGGGGGAGGCGCTGCAGAGCGTGCACGC
 661 CCGGACCCGCGACTACTCCTCTAGCTCCGCCGCCCCCTCCCGACGTCTCGCACGTGCG 660
 b A W A L M K E I E A A G E A L Q S V H A -
 661 GGTGTTTCGGCGCCCGCCGTCCCCAGCGGCACCGGGCAGACGTCGGCGGAGCTGGAGGT
 720 CCACAAAAGCCGCGGGCGGCAGGGTGCCTGCCCCGTCTGCAGCCGCTCGACCTCCA 720
 b V F S A P A V P S G T G Q T S A E L E V -
 721 GCAGCGCAGGCACTCGCTGGTCTCGTTGTGGTGCACATCGTGCCTCAGCCCCGACTGGTT
 780 CGTCGCGTCCGTGAGCGACCAGAGCAAACACCACCGTAGCACGGTCGGGCTGACCAA 780
 b Q R R H S L V S F V V R I V P P S P D W F -
 781 CGTGGCGTGGACAGCCTGGACCTGTGCGACGGGACCGTTGGCGGGAACAGGCGCGCT
 840 GCACCCGCACCTGTCGGACTGGACACGCTGCCCTGGCAACCGCCCTGTCCGCCGCGA 840
 b V G V D S L D L C D G D R W R E Q A A L -
 841 GGACCTGTACCCCTACGACGCCGGACGGACAGCGGTTCACCTTCTCCTCCCCAACTT
 900 CCTGGACATGGGATGCTGCCCTGCCTGTGCCACTGGCTCTATTGCAGGAGGAGGGGTTGAA 900
 b D L Y P Y D A G T D S G F T F S S P N F -
 901 CGCCACCATCCCGCAGGACACGGTACCGAGATAACGTCCTCCTCTCCCAGCCACCCGGC
 960 CGGGTGGTAGGGCGTCCTGTGCCACTGGCTCTATTGCAGGAGGAGGGTGGTGGCG 960
 b A T I P Q D T V T E I T S S S P S H P A -
 961 CAACTCCTTCTACTACCCACGGCTGAAGGCCCTGCCTCCATGCCAGGGTGACACTGGT
 1020 GTTGAGGAAGATGATGGGTGCCACTCCGGACGGAGGGTAGCGGTCCACTGTGACCA 1020
 b N S F Y Y P R L K A L P P I A R V T L V -
 1021 GCGGCTGCGACAGAGCCCCAGGGCCTTCATCCCTCCGCCAGTCCTGCCAGCAGGGA
 1080 CGCCGACGCTGTCTCGGGTCCCGGAAGTAGGGAGGGCGGGTCAGGACGGTCGTCCCT 1080
 b R L R Q S P R A F I P P A P V L P S R D -
 1081 CAATGAGATTGTAGACAGCGCCTCAGTTCCAGAAACGCCGCTGGACTGCGAGGTCTCCCT
 1140 GTTACTCTAACATCTGTCGGAGTCAGGTCTTGCGGGACCTGACGCTCCAGAGGGA 1140
 b N E I V D S A S V P E T P L D C E V S L -

FIGURE 4 - continued

GTGGTCGTCCTGGGGACTGTGCGGAGGCCACTGTGGGAGGCTCAGGGACCAAGAGCAGGAC
 1141 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 1200
 CACCAGCAGGACCCCTGACACGCTCCGGTGACACCCTCCGAGCCCTGGTCTCGTCCTG

b W S S W G L C G G H C G R L G T K S R T -

TCGCTACGTCCGGTCCAGCCGCCAACAACGGAGCCCCTGCCCGAGCTCGAAGAAAGA
 1201 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 1260
 AGCGATGCAGGCCAGGTGGCGGTTGCCCCGGGGCTCGAGCTCTTCT

b R Y V R V Q P A N N G S P C P E L E E E -

GGCTGAGTGCCTGATAACTGCGTCAAGACCAAGAGCCCCGAGCCCTGGGGCCCC
 1261 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 1320
 CCGACTCACGCAGGGACTATTGACGCAGATTCTGGTCTCGGGCGTCGGGACCCGGGG

b A E C V P D N C V *

CCGGAGCCATGGGGTGTGGGGCTCCTGTGCAGGCTCATGCTGCAGGCCGAGGGCA
 1321 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 1380
 GGCCTCGGTACCCACAGCCCCGAGGACACGTCCGAGTACGACGTCCGGCTCCGT

CAGGGGTTTCGCGCTGCTCCTGACCGCGGTGAGGCCGCGACCATCTCTGCACTGAA
 1381 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 1440
 GTCCCCCAAAGCGCGACGAGGACTGGGCCACTCCGGCGCGCTGGTAGAGACGTGACTT

GGGCCCTCTGGTGGCCGGCACGGCATGGAAACAGCCTCCTCTTCCAACCTTGCT
 1441 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 1500
 CCCGGAGACCACCGCGTGCCCCGTAAACCTTGTGGAGGAGGAAAGGGTTGGAACGA

TCTTAGGGGCCCGTGTCCGTCTGCTCTAGCCTCCTCTGCAGGATAAAGTCAT
 1501 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 1560
 AGAATCCCCGGGGCACAGGCAGACGAGAGTCGGAGGAGGACGTCTTATTCAGTA

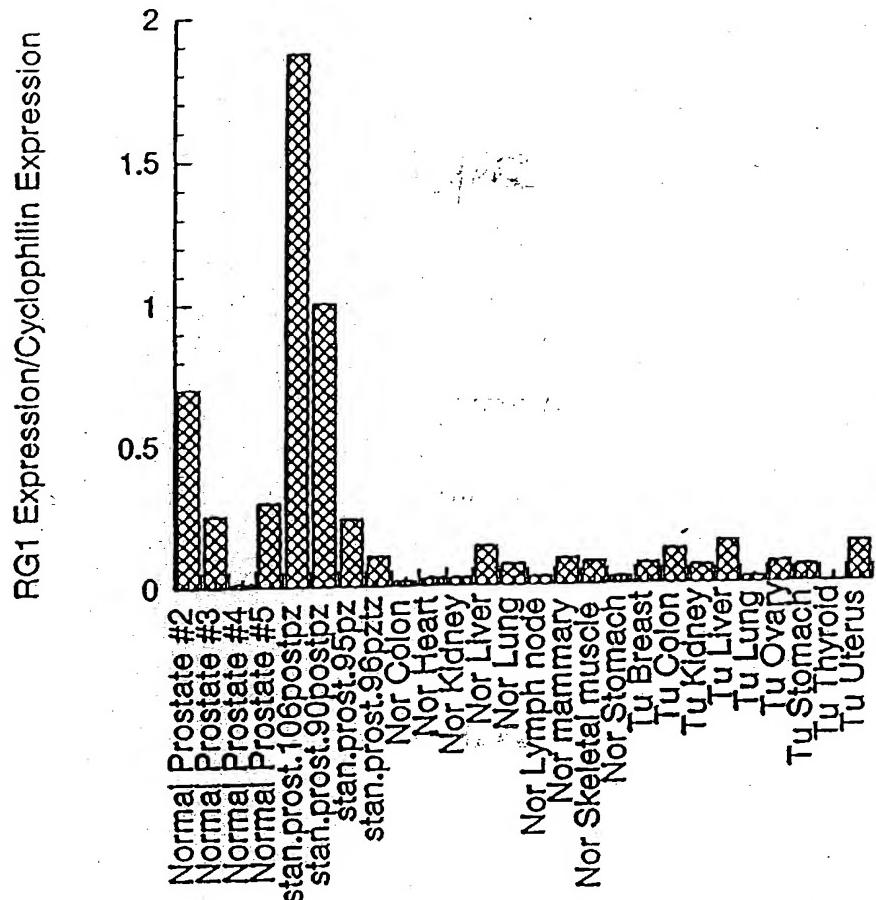
CCCCAAGGCTCCAGCTACTCTAAATTATGTCTCCTTATAAGTTATTGCTGCTCCAGGAGA
 1561 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 1620
 GGGGTTCCGAGGTGATGAGATTAAACAGAGGAATTCAATAACGACGAGGTCTCT

TTGTCTTCATCGTCCAGGGCCTGGCTCCACGTGGTGCAGATAACCTCAGACCTGGTG
 1621 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 1680
 AACAGGAAGTAGCAGGTCCCCGGACCGAGGGTGCACCAACGCTATGGAGTCTGGACCAC

CTCTAGGCTGTGCTGAGCCCCTCTCCGAGGGCGCATCCAAGCGGGGCCACTTGAGAA
 1681 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 1740
 GAGATCCGACACGACTCGGGTGAGAGGGCTCCCGTAGGTTCGCCCCGGTGAACCTTT

GTGAATAAAATGGGGCGGTTTCGGAAGCGTC
 1741 -----+-----+-----+-----+-----+-----+-----+-----+-----+ 1770
 CACTTATTTACCCCGCCAAAGCCTTCGAG

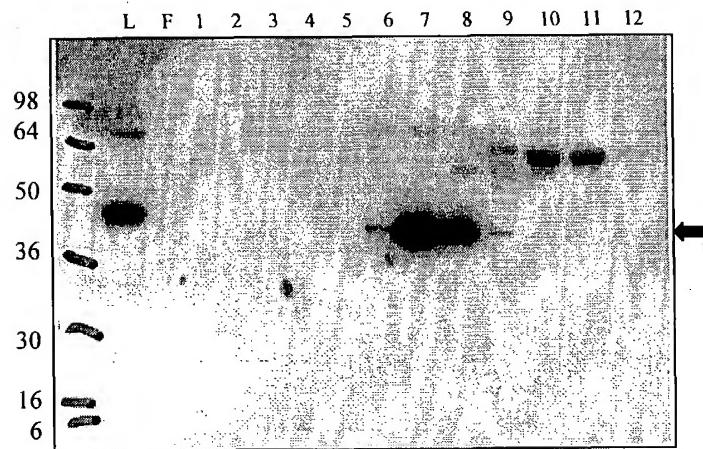
FIGURE 5

Expression of *Rg1* mRNA in human tissues

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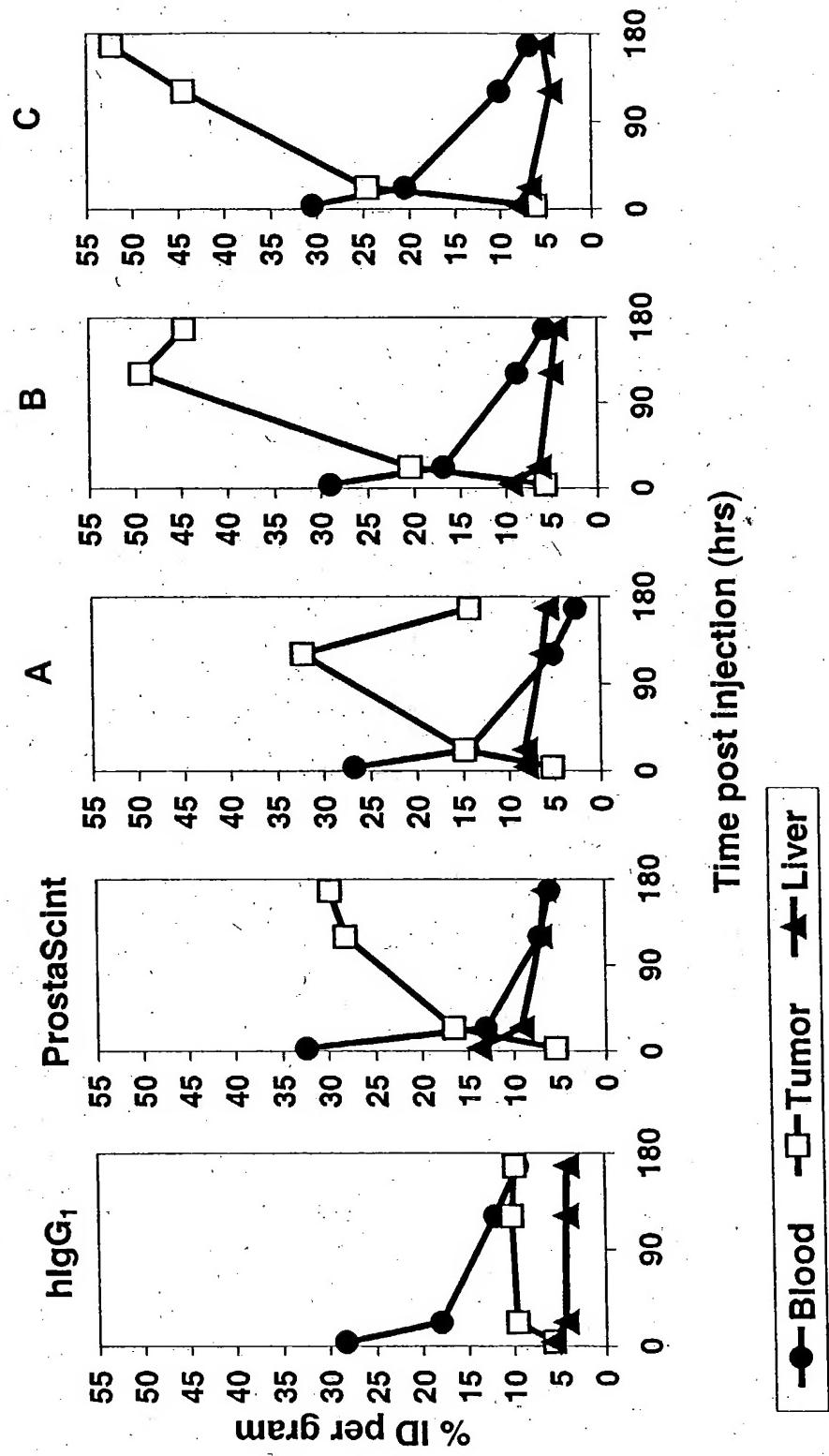
FIGURE 6

**Purification of Native RG1 Protein Secreted
by LNCaP Cells.**



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FIGURE 7



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FIGURE 8

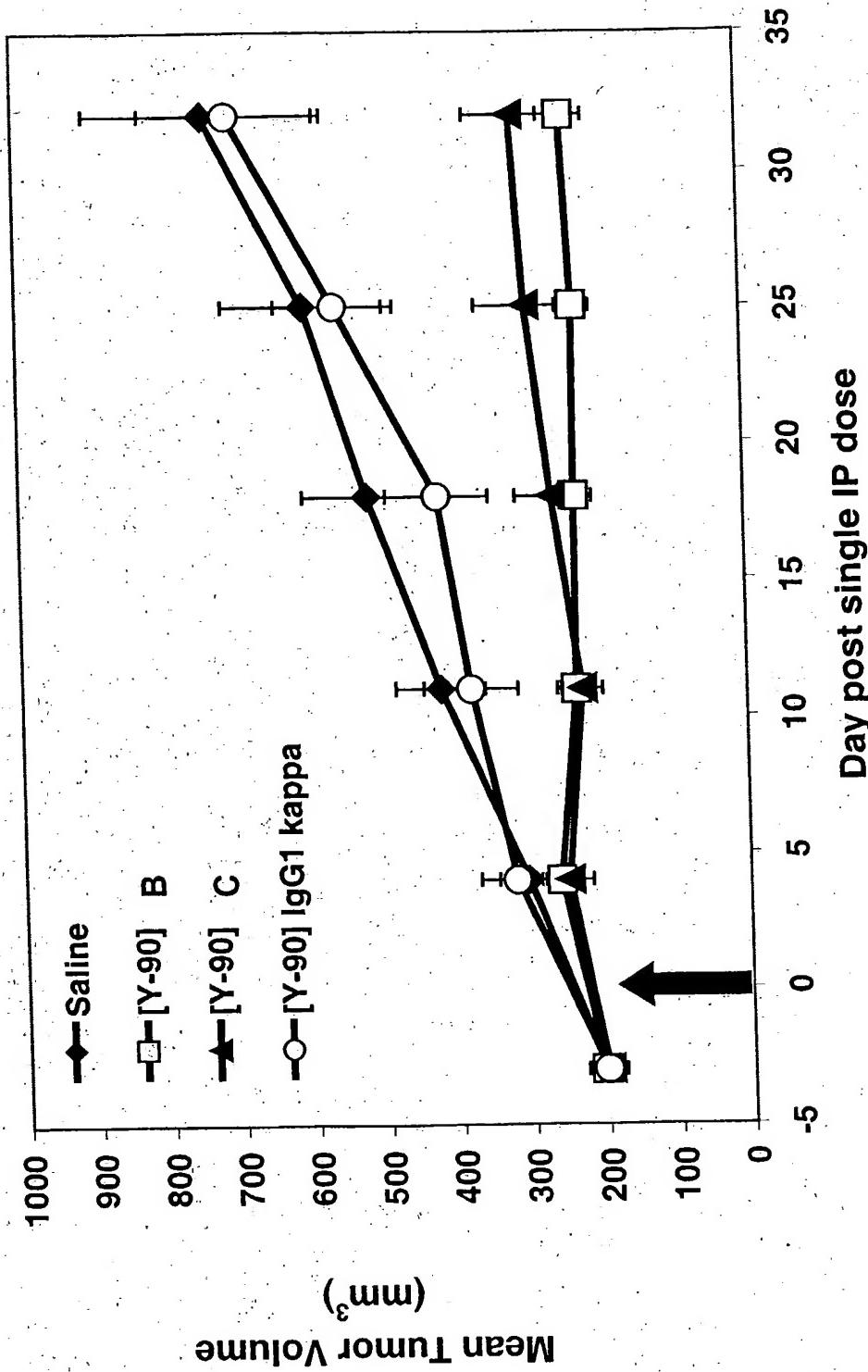


FIGURE 9

huMAb B Variable Region Sequences

V_L

1 METPAQLLFLLLWLPDTTGEIVLTQSPGTLSSLSPGERATLSCRASQSVS 50

51 SSYLAWYQQKPGQAPRLLIYGASSRATGIPDRFSGSGSGTDFTLTISRLE 100101 PEDFAVYYCQQYSSSLTFFGGTKVEIK 150**V_H**

1 MEFVLSWVFLVAILKGVQCEVQLVQSGGLVHPGSSLRLSCAGSGFTFSS 50

51 YVMHWLRQAPGKGLEWSVI GTGGVTHYADSVKGRFTISRDNAKNSLYLQ 100101 MNSLRAEDMAMYYCARWGYYGSGSYENDAFDIWGQGTMTVSSASTK 150**B_3M, V_H (mutations in bold)**

1 MEFVLSWVFLVAILKGVQCEVQLVQSGGLVQPGSSLRLSCAGSGFTFSS 50

51 YVMHWLRQAPGKGLEWSVI GTGGVTHYADSVKGRFTISRDNAKNSLYLQ 100101 MNSLRAEDTAVYYCARWGYYGSGSYENDAFDIWGQGTMTVSSASTK 150

CDR sequences (1, 2, and 3) for each variable region are underlined

FIGURE 10

HuMAb C Variable Region Sequences

V_L

1 METPAQLLFLLLWLPDTTGEIVLTQSPGTLSSLSPGERATLSCRASQSVS 50
 51 SSYLAWYQQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLE 100
 101 PEDFAVYYCQQYGSSLTFGGGTKVEIK 150

V_H

1 MEFVLSWVFLVAILKGVQCEVQLVQSGGLVHPGGLRLSCAGSGFTFSS 50
 51 YVMHWVRQAPGKGLEWVSVIGTGGVTNYADSVKGRFTISRDNAKNSLYLQ 100
 101 MNSLRAEDMAVYYCARWGDWDDAFDIWGQGTMVTVSSASTK 144

C_2m, V_H

(mutations in bold)

1 MEFVLSWVFLVAILKGVQCEVQLVQSGGLVQPGGSLRLSCAGSGFTFSS 50
 51 YVMHWVRQAPGKGLEWVSVIGTGGVTNYADSVKGRFTISRDNAKNSLYLQ 100
 101 MNSLRAEDTAVYYCARWGDWDDAFDIWGQGTMVTVSSASTK 144

CDR sequences, (CDR 1,2, and 3) for each variable region are underlined